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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,980

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Wataru Ikeda

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EXAMINER

DAZENSKI, MARC A

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

10/13/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/572,980	Applicant(s) IKEDA ET AL.	
	Examiner MARC DAZENSKI	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 11 and 12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6-18-2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-5 and 11-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 3 is objected to because of the following informalities: line 7 refers to "the recording medium," however there is insufficient antecedent basis for this in the claim. The examiner interprets this to mean "a recording medium." Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32

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F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 1-2 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 1 defines a recording medium embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program.

Note:

A "signal" (or equivalent) embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Claim Rejections - 35 USC § 112

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 11 provides for the use of a recording method for generating volume data and obtaining a recording medium on which is recorded the volume data but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsumagari et al (US PgPub 2003/0161615), hereinafter referred to as Tsumagari.

Regarding **claim 1**, Tsumagari discloses an enhanced navigation system using digital information medium. Further, Tsumagari discloses Further, Tsumagari discloses a DVD video disc (1) comprising DVD-Video contents (10) as well as ENAV contents (30), the contents (10) comprising VMG/VTSI which is control data for one or more video contents VTS#1-VTS#n as well as the contents (30) allowing a user to play back the contents of each VTS by a method different from VMG/VTSI prepared by the provider and to play back while adding contents different from VMG/VTSI prepared by the provider, which reads on the claimed, "a recording medium on which are recorded an index table, at least one application and an operation mode object," as disclosed at paragraphs [0058], [0062], and [0064]-[0065]; wherein:

ENAV contents (30) comprise playback information which contains a markup language, script language or the like, which describes playback methods of the ENAV contents data body and/or DVD-Video contents (10), the language used as the playback control information may be JavaScript, which reads on the claimed, " wherein the index table shows correspondence between the operation mode object and each title, the operation mode object is either (i) a movie mode object for a movie mode or (ii) a virtual machine mode object for a virtual machine mode,," as disclosed at paragraphs [0064]-[0066];

each title in DVD-Video disc (1) comprising playback control information PGCI in VTSI, which reads on the claimed, "the movie mode object includes a navigation command showing a control procedure," as disclosed at paragraph [0063]; and,

the ENAV playback information can contain file information of the ENAV contents (information of a file to be referred to, and information of a file to be referred to instead if the file to be referred to is not present or if a player does not have a function of decoding the file if that file is present), synchronization information (information used to control to play back the DVD-Video contents in connection or combination with that of the ENAV contents at a predetermined timing), and duration information (information indicating the display time range or timing range of the ENAV contents), the ENAV playback information being written in a markup or script language including Java script, which reads on the claimed, "the virtual machine mode object includes an application management table, each application is described in Java programming language, and stored in an archive file so that the application is readable into a heap area of a virtual machine, and the application management table shows one or more application that has a life cycle bound to the title corresponding to the virtual machine mode object," as disclosed at paragraphs [0065] – [0067].

Regarding **claim 2**, Tsumagari discloses everything claimed as applied above (see claim 1). Further, Tsumagari discloses ENAV contents (30) being stored on a disc (1), the ENAV contents comprising ENAV elements including markup language, script language with particular API's for DVD, image, audio, animation, which reads on the claimed, " wherein the index table has a title number that uniquely identifies each title corresponding to an operation mode object number of the operation mode object described therein," as disclosed at paragraphs [0371]-[0380]; and,

the ENAV contents includes playback information, which reads on the claimed, “each archive file storing data and a class file that constitute a given application, and the life cycle of the application is managed by describing an identifier of the archive file that stores the application into the application management table included in the virtual machine mode object,” as disclosed at paragraphs [0065] and [0067] and exhibited in figures 19-21.

Regarding **claim 11**, the examiner maintains the claim is merely the corresponding recording method to the recording medium of claim 1, and is therefore rejected in view of the explanation set forth in claim 1 above.

.Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumagari et al (US PgPub 2003/0161615), hereinafter referred to as Tsumagari, in view of Ye et al (US Patent 6,874,145), hereinafter referred to as Ye.

Regarding **claim 3**, Tsumagari discloses enhanced navigation system using digital information medium. Further, Tsumagari discloses DVD-Video player (100) which plays back the contents of DVD-Video disc (1) comprising DVD-Video contents

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(10) and ENAV contents (30), which reads on the claimed, "a playback apparatus that simultaneously performs playback of a title and execution of at least one application," as disclosed at paragraph [0058] and exhibited in figure 1; the apparatus comprising:

video playback engine (200) for playing back and processing the DVD-Video contents (10), which reads on the claimed, " a module manager operable to select a current title from a plurality of titles based on an index table," as disclosed at paragraph [0088];

ENAV engine (300) for playing back and processing ENAV contents (30) and/or (30W), which reads on the claimed, "a module operable to execute the application," as disclosed at paragraph [0088]; and,

further, the limitations at lines 7-18 are rejected in view of the explanation set forth in claim 1 above. However, Tsumagari fails to disclose the module includes an application manager operable to, each time a current title is newly selected from the plurality of titles, perform run control so as to run an application that has a life cycle bound to the current title and termination control so as to terminate an application that does not have a life cycle bound to the current title based on the application management table corresponding to the current title. The examiner maintains that it was well known to include the missing limitations, as taught by Ye.

In a similar field of endeavor, Ye discloses methods and apparatus for implementing an application lifecycle design for applications. Further, Ye discloses an application manager used to load and manage execution of one or more applications according to an application lifecycle, the application lifecycle enabling an application to

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enter different states upon the occurrence of predetermined events, which reads on the claimed, "the module includes an application manager operable to, each time a current title is newly selected from the plurality of titles, perform run control so as to run an application that has a life cycle bound to the current title and termination control so as to terminate an application that does not have a life cycle bound to the current title based on the application management table corresponding to the current title," as disclosed at column 4, lines 36-40; column 5, lines 14-54; column 7, lines 26-45; and exhibited in figures 11-14.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the enhanced navigation system using digital information medium of Tsumagari to include an application manager used to load and manage execution of one or more applications according to an application lifecycle, the application lifecycle enabling an application to enter different states upon the occurrence of predetermined events, as taught by Ye, for the purpose of effectively conserving memory resources.

Regarding **claim 4**, the limitations of the claim are rejected in view of the explanation set forth in claim 3 above.

Regarding **claim 5**, the limitations of the claim are rejected in view of the explanation set forth in claim 3 above.

Regarding **claim 12**, the examiner maintains the claim is merely the corresponding playback method to the playback apparatus of claim 3, and is therefore rejected in view of the explanation set forth in claim 3 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
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